

WHAT IS CLAIMED IS:

1. Apparatus, comprising:

a substrate;

a processor provided on said substrate;

5 a computer-readable medium provided on said substrate; and

an access device operatively associated with said substrate, said access device interfacing with said processor and said computer-readable medium provided on said substrate.

2. Apparatus, comprising:

a substrate;

a processor provided on said substrate;

15 a computer-readable medium provided on said substrate;

a processor access device, said processor access device exchanging data and commands with said processor provided on said substrate; and

20 a data access device, said data access device exchanging data with said computer-readable medium provided on said substrate.

3. The apparatus of claim 2, further comprising a host platform operatively associated with said access device, wherein said processor access device exchanges data and commands with said host platform and wherein said data access device exchanges data and commands with said host platform.

4. Apparatus, comprising:

a substrate;

a processor provided on said substrate;

a computer-readable medium provided on said substrate;

5 a processor access device, said processor access device exchanging data and commands with said processor provided on said substrate; and

10 a data access device, said data access device exchanging data with said computer-readable medium provided on said substrate and commands with said processor provided on said substrate.

5. The apparatus of claim 4, wherein said processor access device exchanges data with said data access device.

15 6. The apparatus of claim 5, further comprising a host platform, said processor access device exchanging data and commands with said host platform.

7. Apparatus, comprising:

a substrate;

a processor provided on said substrate;

20 a computer-readable medium provided on said substrate;

a processor access device, said processor access device exchanging data and commands with said processor provided on said substrate; and

25 a data access device, said data access device exchanging data with said computer-readable medium provided on said substrate and data with said processor provided on said substrate.

8. The apparatus of claim 7, wherein said processor

access device exchanges commands with said data access device.

5 9. The apparatus of claim 8, further comprising a host platform, said processor access device exchanging data and commands with said host platform.

10 10. Apparatus, comprising:
 a substrate;
 a processor provided on said substrate;
 a computer-readable medium provided on said
10 substrate;
 a processor access device, said processor access device exchanging data and commands with said processor provided on said substrate; and
 a data access device, said data access device
15 exchanging data with said computer-readable medium provided on said substrate and data and commands with said processor provided on said substrate.

20 11. The apparatus of claim 10, further comprising a host platform, said processor access device exchanging data and commands with said host platform.

25 12. The apparatus of claim 1, wherein said access device comprises:
 a processor access device;
 a first bi-directional data and commands link
 connecting said processor access device and said
 processor provided on said substrate;
 a data access device; and
 a bi-directional data link connecting said data

access device and said computer-readable medium provided on said substrate.

13. The apparatus of claim 12, further comprising:
a host platform;

5 a second bi-directional data and commands link connecting said processor access device and said host platform; and

a third bi-directional data and commands link connecting said data access device and said host platform.
10

14. The apparatus of claim 1, wherein said access device comprises:

a processor access device;
a first bi-directional data and commands link
15 connecting said processor access device and said processor provided on said substrate;

a data access device;
a first bi-directional data link connecting said data access device and said computer-readable medium
20 provided on said substrate;

a bi-directional commands link connecting said data access device and said processor provided on said substrate; and

a second bi-directional data link connecting
25 said data access device and said processor access device.

15. The apparatus of claim 14, further comprising:
a host platform; and

a second bi-directional data and commands link

connecting said processor access device and said host platform.

16. The apparatus of claim 1, wherein said access device comprises:

- 5 a processor access device;
- a first bi-directional data and commands link connecting said processor access device and said processor provided on said substrate;
- a data access device;
- 10 a first bi-directional data link connecting said data access device and said computer-readable medium provided on said substrate;
- a second bi-directional data link connecting said data access device and said processor provided
- 15 on said substrate; and
- a bi-directional commands link connecting said data access device and said processor access device.

17. The apparatus of claim 16, further comprising:

- a host platform; and
- 20 a second bi-directional data and commands link connecting said processor access device and said host platform.

18. The apparatus of claim 1, wherein said access device comprises:

- 25 a processor access device;
- a first bi-directional data and commands link connecting said processor access device and said processor provided on said substrate;
- a data access device;

a bi-directional data link connecting said data access device and said computer-readable medium provided on said substrate; and

5 a second bi-directional data and commands link connecting said data access device and said processor provided on said substrate.

19. The apparatus of claim 18, further comprising:
a host platform; and

10 a third bi-directional data and commands link connecting said processor access device and said host platform.

20. A method, comprising:

15 furnishing a substrate having a processor provided thereon and a computer-readable medium provided thereon;

furnishing an access device, said access device comprising a processor access device and a data access device; and

20 interfacing said access device with a processor provided on a substrate and a computer-readable medium provided on said substrate.

21. The method of claim 20, wherein interfacing comprises:

25 exchanging data and commands between the processor access device and the processor provided on said substrate; and

exchanging data between the data access device and the computer-readable medium provided on said substrate.

22. The method of claim 21, further comprising exchanging data and commands between said access device and a host platform.

23. The method of claim 22, wherein exchanging data
5 and commands between said access device and a host platform comprises:

exchanging data and commands between the
processor access device and the host platform; and
exchanging data and commands between the data
10 access device and the host platform.

24. The method of claim 20, wherein interfacing comprises:

exchanging data and commands between the
processor access device and the processor provided on
15 said substrate;

exchanging data between the data access device
and the computer-readable medium provided on said
substrate; and

exchanging commands between the data access
20 device and the processor provided on said substrate.

25. The method of claim 24, further comprising exchanging data between the processor access device and the data access device.

26. The method of claim 20, wherein interfacing
25 comprises:

exchanging data and commands between the
processor access device and the processor provided on
said substrate;

exchanging data between the data access device
and the computer-readable medium provided on said
substrate; and

5 exchanging data between the data access device
and the processor provided on said substrate. .

27. The method of claim 26, further comprising
exchanging commands between the processor access device
and the data access device.

10 28. The method of claim 20, wherein interfacing
comprises:

 exchanging data and commands between the
processor access device and the processor provided on
said substrate;

15 exchanging data between the data access device
and the computer-readable medium provided on said
substrate; and

 exchanging data and commands between the data
access device and the processor provided on said
substrate.

20 29. The method of claim 20, further comprising:
 providing the processor with an encryption key
and a decryption algorithm;

 encrypting data to form encrypted data;
 storing said encrypted data on the computer-
25 readable medium provided on said substrate;

 providing a user PIN to the processor provided
on said substrate;

 using the processor and PIN to identify user
access rights;

transferring to a host platform the encryption key and a decryption algorithm previously provided to the processor;

5 reading said encrypted data from the computer-readable storage medium provided on said substrate;

transferring to the host platform the encrypted data read from the computer-readable storage medium; and

10 decrypting on the host platform the transferred encrypted data using the encryption key and decryption algorithm previously transferred to the host platform.

30. The method of claim 20, further comprising:

15 providing the processor with a data-scramble algorithm;

providing the processor with a user PIN and data to be written on the computer-readable storage medium;

20 using the processor to send the data to be written to the data access device;

using the processor and PIN to identify user access rights;

using the processor and data-scramble algorithm to send commands to the data access device; and

25 using the data access device to write data to the computer-readable medium in accordance with the commands sent to the data access device.

31. The method of claim 30, further comprising:

30 sending to the processor the user PIN and a request for data from the computer-readable storage

medium;

using the processor and PIN to determine user access rights;

5 using the processor and data-scramble algorithm to send commands to the data access device;

using the data access device to read data from the computer-readable storage medium in accordance with the commands from the processor;

10 using the data-scramble algorithm to unscramble the data; and

transferring unscrambled data to the processor access device.

32. The method of claim 20, further comprising:

15 providing the processor access device with a user PIN, data, and a data write request;

using the processor access device to transfer to the processor the user PIN and the data;

using the processor access device to transfer the data write request to the data access device;

20 using the processor and user PIN to determine user access rights;

using the processor to encrypt data;

sending encrypted data to the data access device; and

25 using the data access device to write encrypted data to the computer-readable storage medium.

33. The method of claim 32, further comprising:

providing the processor access device with a user PIN and a data request;

30 using the processor access device to transfer to

the processor the user PIN;

using the processor access device to transfer to
the data access device the data request;

5 using the data access device and data request to
read encrypted data from the computer-readable
storage medium;

transferring read encrypted data from the data
access device to the processor;

10 using the processor and user PIN to determine
user access rights; and

using the processor to decrypt the read
encrypted data from the data access device.

34. Apparatus, comprising:

15 a card;
a processor provided on said card;
an optical storage medium provided on said card;
and

20 an access device operatively associated with
said card, said access device interfacing with said
processor and said optical storage medium provided on
said card.

35. The apparatus of claim 34, wherein said access
device comprises:

25 a processor access device;
a first bi-directional data and commands link
connecting said processor access device and said
processor provided on said card;
an optical data access device;
30 a bi-directional data link connecting said data
access device and said optical storage medium

provided on said card;

a second bi-directional data and commands link connecting said processor access device and a host platform; and

5 a third bi-directional data and commands link connecting said optical data access device and said host platform.

36. The apparatus of claim 34, wherein said access device comprises:

10 a processor access device;

a first bi-directional data and commands link connecting said processor access device and said processor provided on said card;

an optical data access device;

15 a first bi-directional data link connecting said optical data access device and said optical storage medium provided on said card;

a bi-directional commands link connecting said optical data access device and said processor provided on said substrate;

20 a second bi-directional data link connecting said optical data access device and said processor access device; and

25 a second bi-directional data and commands link connecting said processor access device and a host platform.

37. The apparatus of claim 34, wherein said access device comprises:

a processor access device;

30 a first bi-directional data and commands link

connecting said processor access device and said processor provided on said card;

an optical data access device;

5 a first bi-directional data link connecting said optical data access device and said optical storage medium provided on said card;

a second bi-directional data link connecting said optical data access device and said processor provided on said card;

10 a bi-directional commands link connecting said optical data access device and said processor access device; and

15 a second bi-directional data and commands link connecting said processor access device and a host platform.

38. The apparatus of claim 34, wherein said access device comprises:

a processor access device;

20 a first bi-directional data and commands link connecting said processor access device and said processor provided on said card;

an optical data access device;

25 a bi-directional data link connecting said optical data access device and said optical storage medium provided on said card;

a second bi-directional data and commands link connecting said optical data access device and said processor provided on said card; and

30 a third bi-directional data and commands link connecting said processor access device and a host platform.

39. Apparatus, comprising:

a substrate;

a processor provided on said substrate; and

5 a computer-readable medium provided on said
substrate, said processor not directly accessing said
computer-readable medium.

40. The apparatus of claim 39, wherein said
substrate comprises a card and wherein said computer-
readable medium comprises an optical storage medium.

10 41. The apparatus of claim 39, wherein said
substrate comprises a compact disk.

42. The apparatus of claim 39, wherein said
substrate comprises a digital video disk.

15 43. The apparatus of claim 39, wherein said
substrate comprises a MiniDisc.

44. Apparatus, comprising:

a substrate;

a processor provided on said substrate;

20 a computer-readable medium provided on said
substrate;

a processor access device, said processor access
device exchanging data and commands with said
processor provided on said substrate;

25 a data access device, said data access device
exchanging data with said computer-readable medium
provided on said substrate;

a host platform operatively associated with said

access device, wherein said processor access device exchanges data and commands with said host platform and wherein said data access device exchanges data and commands with said host platform; and

5 a network operatively associated with said host platform, said host platform exchanging data with said network.

45. The apparatus of claim 44, wherein said network comprises a virtual private network.

10 46. The apparatus of claim 44, wherein said host platform transfers encrypted data to said network.

47. The apparatus of claim 44, wherein said host platform receives encrypted data from said network.

15 48. The apparatus of claim 47, wherein said host platform transfers decrypted data to said network.

49. A method, comprising:

furnishing a substrate having a processor provided thereon and a computer-readable medium provided thereon;

20 furnishing an access device, said access device comprising a processor access device and a data access device;

interfacing said access device with a processor provided on a substrate and a computer-readable medium provided on said substrate; and

25

exchanging data and commands between said access device and a host platform.

50. The method of claim 49, further comprising:
connecting the host platform to a network; and
exchanging data between the host platform and
the network.

5 51. The method of claim 50, further comprising
encrypting data before transferring it from the host
platform to the network.

52. The method of claim 50, further comprising
receiving encrypted data from the network.

10 53. The method of claim 52, further comprising
decrypting data before transferring it from the host
platform to the network.

54. The method of claim 49, further comprising
creating a virtual network between the host platform and
15 a network device.

55. The method of claim 54, further comprising
transferring data between the host platform and the
network device via the virtual network.

56. The method of claim 54, further comprising using
20 the processor to create the virtual network.